

POPOVSKIY, Mark

4-11-14/34

AUTHOR: Popovskiy, Mark

TITLE: Biographies of Our Days (Biografii nashikh dney) A High Aim (Vysokaya tsel')

PERIODICAL: Znaniye - Sila, 1957, # 11, p 14-16 (USSR)

ABSTRACT:

A biography of Professor Ioakim Romanovich Petrov of the Military Medical Academy, founder of the Laboratory for Experimental Pathology of the Leningrad Institute for Transfusion of Blood (Laboratoriya eksperimental'noy patologii Leningradskogo instituta perelivaniya krovi). In 1940, he was the first to invent a blood replacing solution. Recently, one of the Leningrad pharmaceutical factories turned out a new blood-replacing preparation - "Sinkol" - developed in the laboratory of Professor Petrov. It is a complicated synthetic preparation which by its composition comes considerably closer to the liquid components of blood than salt water. In 1947, the large monograph of Professor I.R. Petrov "Shok i Kollaps" ("The Shock and Collapse") was published. The personnel of the Chair of Pathological Physiology, headed by Professor Petrov has already interesting experimental data proving that shock can be prevented. It is now working on the development of anti-shock preparations.

Card 1/2

POPOVSKIY, Mark.

Inventor Andrei Gordin. Znan. sila 32 no.5:11-16 My '57.

(Gordin, Andrei Filippovich)

(MLRA 10:9)

Popovskiy, Mark

AUTHOR: Vedeneyev, B.

4-1-12/19

TITLE: Fight Against Death (Voyna so smert'yu)

PERIODICAL: Znaniye - Sila, 1958, # 1, page 38 (USSR)

ABSTRACT: The author reviews a book published by Trudrezervizdat, written by Mark Popovskiy: "Kogda Vrach Mechtayet" ("When a Physician Dreams"). The activity of talented medical-researchers, idealists and enthusiasts is given and the lives of some famous Russian doctors are described.

AVAILABLE: Library of Congress

Card 1/1

POPOVSKIY, Mark

Man in the armchair. Sots. trud 8 no.8:83-90 Ag '63.

(MIRA 16:8)

(Human engineering)

POPOVSKIY, Mark (Moskva)

Plant growers. Biol. v shkole no.3:80-86 My-Je '63.

(MIRA 16:10)

POPOVSKIY, Mark

Academician of the soil. Nauka i zhizn' 29 no.2:34-37 F
'62. (MIRA 15:3)
(Sokolov, Boris Pavlovich) (Ukraine--Corn breeding)

POPOVSKIY, Mark

They will disappear forever. Znan.-sila 38 no.2:36-37 P '63.
(MIRA 16:3)

(Astrakhan region--Plague--Prevention)
(Rostov--Cholera, Asiatic--Preventive inoculation)

POPOVSKIY, Mark

No, they are not rivals. Znan.sila 37 no.3:5-7 Mr '62.

(MIRA 15:4)

(Krasnodarsk Province—Hybrid corn)

~~POPOVSKIY, Mark~~

Medicaments obtained from blood. Znan. sila 36 no. 5:18-19
My '61. (MIRA 14:5)
(Blood as food or medicine)

POPOVSKIY, Mark

Conversation on hybrid vigor. IUn. nat. no.12:16-18 D '60.
(MIRA 14:3)
(Heterosis)

POPOVSKIY, Mark Aleksandrovich; GIL'GULIN, M., red.; MUKHIN, Yu., tekhn. red.

[Living grain] Zhivoe zerno. Moskva, Gos. izd-vo polit. lit-ry, 1961.
31 p. (MIRA 14:7)

(Grain breeding)

POPOVSKIY, Mark

Half a century dedicated to his country's agriculture. Nauka
i zhizn' 27 no.8:39-44 Ag '60. (MIRA 13:9)
(IVr'ev, Vasilii Iakovlevich, 1879-)
(Grain breeding)

POPOVSKIY, Mark

Of greater value than gold. Znan.sila 35 no.8:16-21 Ag '60.
(MIRA 13:9)

(Russia--Economic relations--United States)
(United States--Economic relations--Russia)

POPOVSKIY, Mark Aleksandrovich; MAZHOKINA, R.F., red.izd-va;
YAZLOVSKAYA, E.Sh., tekhn. red.

[Doctor Khavkin's destiny] Sud'ba doktora Khavkina. Moskva,
Izd-vo vostochnoi lit-ry, 1963. 130 p. (MIRA 16:3)
(KHAVKIN, VLADIMIR MORDEKHAÏ, 1860-1930)
(INDIA—PLAGUE—PREVENTIVE INOCULATION)

POPOVSKIY, Mark Aleksandrovich; ANTONYUK, L., red.; KURLYKOVA, L.,
tekhn. red.

[Treading in the tracks of the retreating] Po sledam ot-
stupaiushchikh. Moskva, Molodaia gvardiia, 1963. 254 p.
(MIRA 17:2)

POPOVSKIY, Mark Aleksandrovich; ANTONYUK, L., red.; KIRILLINA, A.,
tekhn. red.

[The second creation of the world] Vtoroe sotvorenie mira.
Moskva, Molodaia gvardiia, 1960. 222 p. (MIRA 16:6)
(Plant breeding)

POPOVSKIY, V. G.; GIDALEVICH, M. G.; DUL'NEVA, I. P.; ZASLAVSKIY, A. S.;

Prinimali uchastiye: UL'YANKIN, M. G.; ZELENSKAYA, M. I.;
SHCHELOKOVA, I. M.; DANILOV, M. A.; SHVETS, A. T.

Improving the technology of grape juice manufacture. Trudy
MNIIPP 1:9-37 '61. (MIRA 16:1)

(Moldavia--Grape juice)

POPOVSKIY, Mark Aleksandrovich; GOLUBKOVA, V.A., red.; KLAPTSOVA,
T.F., tekhn. red.

[Swept cobweb] Razorvannaya pautina. Moskva, Izd-vo "Sovetskaya
Rossiya," 1963. 131 p. (MIRA 16:10)
(Skriabin, Konstantin Ivanovich, 1878-)

POPOVSKIY, Mark Aleksandrovich; ETINGOF, Ye.B., red.; TRET'YACHENKO,
B.F., red.; OSTRIROV, N.S., tekhn.red.

[When a physician dreams] Kogda vrach mehtaet. Moskva, Vses.
uchebno-pedagog.izd-vo Trudrezervizdat, 1957. 189 p. (MIRA 12:3)
(MEDICINE)

POPOVSKIY, S.M.-(poselok Severnyy, Stalinskoy oblasti)

"Prophylactic work of the dispensary in a coal mine" by F.Kh.Zinger.
Reviewed by G.M. Popovskii. Vrach. delo no.9:139-140 S '60.

(MIRA 13:9)

(DONETS BASIN—COAL MINERS—MEDICAL CARE)
(ZINGER, F.Kh.)

GASYUK, G. N.; DUL'NEVA, I. P.; POPOVSKIY, V. G.

Effect of ultrasonic waves on the rate of tartar precipitation
from grape juice. Trudy MNIIPP 1:75-82 '61.
(MIRA 16:1)

(Ultrasonic waves—Industrial applications)
(Grape juice)

POPOVSKIY, V.G.

Improving the production of grape juice. Trudy VNIIPP
5:3-14 '64.

(MIRA 19:1)

LADYZHANSKIY, I.A.; POPOVSKIY, V.G.; GASYUK, G.N.; DUL'NEVA, I.P.;
ZELENSKAYA, M.I.

Economic efficiency of using the simplified technology in
grape juice production. Trudy MNIIPP 5:91-96 '64.
(MIRA 19:1)

POPOVSKIY, V. G.; GIDALEVICH, M. G.; DUL'NEVA, I. P.; Prinimali
uchastiye: ZELENSKAYA, M. I.; SHCHELOKOVA, I. M.

Tartar crystallization during partial freezing of grape juice.
Trudy MNIIPP 1:89-98 '61. (MIRA 16:1)

(Grape juice) (Crystallization)

GASYUK, G. N.; POPOVSKIY, V. G.; DUL'NEVA, I. P.; LEVINA, M. V.

Speeding the crystallization of tartar in the treatment of
grape juice with ultrasonic waves in tanks. Trudy MNIIPP 1:
83-87 '61. (MIRA 16:1)

(Grape juice)
(Ultrasonic waves—Industrial applications)

POPOVSKIY, V.G.; GASYUK, G.N.; MATOV, B.M.; LEVINA, M.V.

Effect of ultrasonic waves on the yield and color of grape juice.
Kons.i ov.prom. 16 no.1:4-6 Ja '61. (MIRA 13:12)

1. Moldavskiy nauchno-issledovatel'skiy institut pishchevoy promy-shlennosti.

(Grape juice)

(Ultrasonic waves---Industrial applications)

POPOVSKIY, V.G.; GASYUK, G.N.; MATOV, B.M.

Treatment of grapes with ultrasonic waves before squeezing.
Kons. 1 ov. prom. 14 no.11:29-30 N '59. (MIRA 13:2)

1. Moldavskiy nauchno-issledovatel'skiy institut pishchevoy promyshlennosti.
(Ultrasonic waves--Industrial application) (Grape juice)

ROZENBERG, M.S.; RYVKIN, S.A.; SETSKO, V.I.; POPOVSKIY, V.M.

Pilot plant for a rapid upgrading of wet fuels in hot fuel
oils. Khim. i tekhn. topl. i masel. 8 no.3:33-36 Mr '63.
(MIRA 16s4)

(Petroleum as fuel)

POPOVSKIY, V.V.; BORESKOV, G.K.; MUZYKANTOV, V.S.

Mechanism of the oxidation of hydrogen on mixed cobalt oxide,
as studies by means of the oxygen isotope O^{18} . Zhur. fiz. khim.
35 no.1:192-197 Ja '61. (MIRA 14:2)

1. Fiziko-khimicheskiy institut im. L.Ya. Karpova.
(Cobalt oxide) (Hydrogen) (Oxidation)

PHASE I BOOK REFORMATION 800/5521

Abdumet'ev, M. S. Institut fizicheskoy khimii

Problemy khimicheskoy i kataliticheskoy. (t) 101. Fizika i khimicheskaya kataliza (Problems of Kinetics and Catalysis. (vol. 101. Physics and Physical Chemistry of Catalysis) Moscow, Izd-vo AN SSSR, 1960. 461 p. Erata sily inserted. 2,600 copies printed.

Eds.: S. Z. Roginskii, Corresponding Member of the Academy of Sciences USSR, and O. V. Erylov, Academician of the Academy of Sciences USSR. Moscow, Izd-vo AN SSSR, 1960. 461 p. 2,600 copies printed.

PURPOSE: This collection of articles is addressed to physicists and chemists and to the community of scientists in general interested in recent research on the physics and physical chemistry of catalysis.

CONTENTS: The articles in this collection were read at the conference on the Physics and Physical Chemistry of Catalysis organized by the USSR Academy of Sciences and the USSR Academy of Chemical Sciences, Academy of Sciences USSR, during the Academic Council on the Problem of the scientific basis for the selection of catalysts. The conference was held at the Institute of Physical Chemistry of the USSR Academy of Sciences, Moscow, March 20-23, 1960. Of the great volume of material presented at the conference, only papers and published abstracts are included in this collection.

| | |
|---|----|
| Kozlov, J. (Goschulovskaya Akademiya Nauk, Institut fizicheskoy khimii, Praga). On the theory of chemisorption and of surface states | 34 |
| Melashchuk, A. M., J. D. B. and J. E. (Moscow Mining and Metallurgical Academy, Moscow). Investigation of electric conductivity of semiconductor catalysts | 37 |
| Kozlov, J. M., and V. A. Sushchinskii (Department of Physics of Moscow State University, Institute of Physical Chemistry of the USSR Academy of Sciences, Moscow). The electron theory of chemisorption | 58 |
| Polyakov, P. P., and V. A. Sushchinskii (Institute of Physical Chemistry of the USSR Academy of Sciences, Moscow). Effect of an external electric field on the adsorptive capacity of a semiconductor | 61 |
| Kozlov, J. M., and V. A. Sushchinskii (Institute of Physical Chemistry of the USSR Academy of Sciences, Moscow). Measurement of the contact potential of a semiconductor as a means of selecting the various charge states of particles adsorbed on it | 62 |
| Polyakov, P. P., and O. E. Borkovskiy (Moskovskiy khimiko-tekhnologicheskii institut imeni D. I. Mendeleeva, Moscow Chemical Technology Institute named after D. I. Mendeleev). Catalytic activity of the metal oxides of the 4th period in relation to the oxidation reaction of hydrogen | 67 |
| Kayser, P. P. (Institute of Physical Chemistry of the USSR Academy of Sciences, Moscow). Heterogeneity of the active surface of semiconductor catalysts | 73 |
| Chizhikov, G. I., and P. P. Kayser (Institute of Physical Chemistry of the USSR Academy of Sciences, Moscow). Regularities in the mechanism of chemical adsorption and catalysis over solid solutions of zinc oxide | 77 |
| Kuznetsov, L. I., and P. P. Kayser (Institute of Physical Chemistry of the USSR Academy of Sciences, Moscow). Investigation of chemical absorption of gases on nickel oxide and its solid solutions | 82 |
| Kuznetsov, L. I., and P. P. Kayser (Institute of Physical Chemistry of the USSR Academy of Sciences, Moscow). Mechanism of electron exchange in the photooxidation of water over semiconductors | 87 |
| Kuznetsov, L. I., and P. P. Kayser (Institute of Physical Chemistry of the USSR Academy of Sciences, Moscow). Study of the surface charge of oxide semiconductor catalysts during adsorption | 88 |
| Kuznetsov, L. I., G. I. Chizhikov, P. P. Kayser, and V. A. Sushchinskii (Moskovskiy khimiko-tekhnologicheskii institut imeni D. I. Mendeleeva, Moscow Chemical Technology Institute named after D. I. Mendeleev). Investigation of the mechanism of chemical adsorption and catalysis over solid solutions of carbon monoxide | 90 |
| Kuznetsov, L. I., V. A. Sushchinskii, and A. A. Sushchinskii (Institute of Organic Chemistry of the USSR Academy of Sciences, Moscow). Monophase and multiphase catalysis of the reaction of the hydrogenation of ethylene over Al ₂ O ₃ catalysts | 97 |
| Kuznetsov, L. I., and P. P. Kayser (Institute of Physical Chemistry of the USSR Academy of Sciences, Moscow). Type of bond and properties of semiconductors of the crystallochemical group, diamond - zinc blends - wurtzite | 96 |

YUR'YEVA, T.M.; POPOVSKIY, V.V.; BORESKOV, G.K.

Catalytic properties of oxides of period 4 metals of the periodic system with respect to oxidation reactions. Part 2: Decomposition of nitrogen oxide. Kin. i kat. 6 no. 6:1041-1045 N-D '65
(MIRA 19:1)

1. Institut kataliza Sibirskogo otdeleniya AN SSSR. Submitted September 11, 1964.

33479

11.1325
5.1190

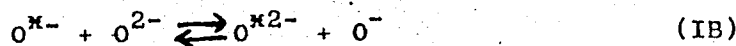
S/195/61/002/005/003/027
E111/E485

AUTHORS: Boreskov, G.K., Popovskiy, V.V.

TITLE: Mobility of the oxygen of solid oxides

PERIODICAL: Kinetika i kataliz, v.2, no.5, 1961, 657-667

TEXT: It is important for elucidating the reaction mechanism of oxide oxidation-reduction catalysts to investigate the reaction of oxides with oxygen. New opportunities for such investigation are provided by the use of the oxygen isotope, giving quantitative data on the oxygen mobility in surface and deep layers and its participation in catalyst-surface reactions. The authors discuss first mechanism and kinetics of exchange between molecular oxygen and oxide oxygen. The scheme of this exchange is given by



Card 1/7

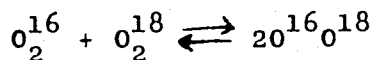
33479

S/195/61/002/005/003/027

E111/E485

Mobility of the oxygen ...

The mechanisms considered give different forms of x versus t curves and the authors give some examples taken from their previous work (Ref.4: Kinetika i kataliz, v.1, 1960, 566) for CuO , Co_3O_4 , NiO , Fe_2O_3 and V_2O_5 . The order of reaction with respect to oxygen for these oxides (except NiO) was found to be over 0.5. This indicates that the rate-controlling stage for exchange which is associated with the participation of molecular oxygen is either the oxygen adsorption or the conversion of the adsorbed molecular oxygen ions into the adsorbed atomic ions. A comparison of the rate of isotope exchange of the oxide oxygen with that of the homomolecular exchange of oxygen catalysed by oxygen



(from published data, e.g. Ref.5: A.P.Dzisyak, G.K.Boreskov, L.A.Kasatkina, V.Ye.Kochurikhin, Kinetika i kataliz, v.2, 1961, 386) gives further information on the nature of the rate-controlling stage. For Fe_2O_3 , Cr_2O_3 , NiO , V_2O_5 and V_2O_5 with alkali-metal sulphates as promoters, the rates of the two reactions, their

Card 3/7

33479

S/195/61/002/005/003/027

E111/E485

Mobility of the oxygen ...

activation energy and order with respect to oxygen are the same. Consequently, either molecular-oxygen adsorption or conversion of adsorbed molecular into adsorbed atomic ions can be rate controlling. For MgO and ZnO no definite conclusions can be drawn. Since electron exchanges are involved, the Fermi level of the oxide should affect the isotope exchange but other factors tend to mark the effect. Only indirect evidence on this is available from variation of the stoichiometry of oxides by preliminary high-temperature treatment and influence on exchange rate of introduction of cations of a different valency into the oxide. At high temperatures the depth of exchange embraces a considerable part of the oxygen in the oxide crystals; the problem of allowing for oxygen diffusion inside the oxide is similar to that of the non-stationary heating of a solid immersed in a liquid; the authors used a published approximate equation (Ref.9: P.Carman, R.Haul, Proc. Roy. Soc., v.222A, 1954, 109) for treating their experimental results. At 800°C the diffusion coefficient values for oxygen in Co_3O_4 , CuO and Fe_2O_3 were 1.7×10^{-5} , 1.5×10^{-14} 2×10^{-15} (activation energies 76, 130 and 100 kcal/mol) respectively, that in V_2O_5 at 523 being 2×10^{-13} . The Card 4/7

33079

S/195/61/002/005/003/027
E111/E485

Mobility of the oxygen ...

comparison of mobility of surface oxygen is complicated by the order of reaction and activation energy being different for different oxides. Mobility can also depend on the preparation of the oxide. Published data show that the surface-oxygen mobility in fact varies within wide limits. The lowest exchange rate is possessed by oxides with cations having 0, 5 and 10 d-electrons, the lowest by those with an intermediate number of d-electrons. Differences in catalytic activity are less marked but similar in character (except for copper oxide). The data show that the escape energy of electrons is not the main factor determining the activation energy of exchange. The authors show that the exchange rate passes through a maximum, depending on the heat of the reaction



and that for oxides highly active in isotope exchange cations of different charges must be present during exchange. If the stationary oxygen content of the catalyst differs considerably from the equilibrium the direct relation between catalytic activity and Card 5/7

33479

S/195/61/002/005/003/027

E111/E485

Mobility of the oxygen ...

oxygen mobility, which otherwise prevails, can break down. The observed high rates of adsorbed and lattice oxygen transfer of oxygen-isotope exchange with oxides cast doubt on the idea that catalysed oxidizing reactions occur through reaction with adsorbed rather than lattice oxygen. The large variation in oxygen mobility of most oxides, even within the monolayer of surface ions suggests that the negligible transfer of oxide-catalyst oxygen into oxidation-reaction products should be attributed to the fact that only the small proportion of oxide-surface oxygen with a definite bonding energy participates in catalytic oxidation reactions. S.M.Karpacheva, A.M.Rozen, E.Kh.Yenikayev and A.P.Dzisyak are mentioned in the article in connection with their contributions in this field. There are 6 figures, 2 tables and 16 references: 9 Soviet-bloc and 7 non-Soviet-bloc. The four most recent references to English language publications read as follows:

Ref.3: E.R.S.Winter, Adv. Catal., v.10, 1958, 196;

Ref.11: E.R.S.Winter, J. Chem. Soc., 1955, 3824;

Ref.14: D.Dowden, N.Mackenzie, B.Trappnell, Proc. Roy. Soc., v.237, 1956, 245; Ref.15: D.Dowden, Wals. Trans. of Second Internat.

Congress on Catalysis, Paris, 1960.

Card 6/7

POPOVSKIY, V. V.

Dissertation defended for the degree of Candidate of Chemical Sciences
at the Joint Academic Council on Chemical Sciences; Siberian Branch

"Investigation of the Catalytic Activity and Isotopic Exchange with
Molecular Oxygen of Several Oxides of Group IV Metals."

Vestnik Akad. Nauk, No. 4, 1963, pp 119-145

BORESKOV, G.K.; POPOVSKIY, V.V.

Mobility of oxygen in solid oxides. Kin.i kat. 2 no.5:657-667
S-O '61. (MIRA 14:10)

1. Fiziko-khimicheskiy institut imeni L.Ya.Karpova.
(Oxides) (Oxygen--Isotopes)

BORESKOV, G.K.; MUZYKANTOV, V.S.; POPOVSKIY, V.V.; GOL'DSHTEIN, N.D.

Isotope oxygen exchange in the system aluminum γ -oxide -
molecular oxygen. Dokl. AN SSSR 159 no.6:1354-1356 D '64
(MIRA 18:1)

1. Institut kataliza Sibirskogo otdeleniya AN SSSR. 2. Chlen-
korrespondent AN SSSR (for Boreskov).

POPOVSKIY, V.V.; BORESKOV, G.K.

Catalytic activity of oxides of fourth-period metals with respect
to the oxidation of hydrogen. Probl. kin. i kat. 10:67-72 '60.
(MIRA 14:5)

1. Moskovskiy khimiko-tekhnologicheskij institut imeni D.I.
Mendeleeva.

(Metallic oxides) (Catalysts)

ANDRUSHKEVICH, T.V.; POPOVSKIY, V.V.; BORESKOV, G.K.

Catalytic properties of oxides of metals of the IV period of the periodic system with respect to oxidation reaction. Part 1: Oxidation of methane. Kin. i kat. 6 no. 5:860-863 S-O '65. (MIRA 18:11)

1. Institut kataliza Sibirskogo otdeleniya AN SSSR.

| | | |
|---|---|---|
| L 38904-66 | EWT(d)/EWT(m)/EWP(v)/T/EWP(t)/ETL/EWP(k)/EWP(h)/EWP(i) IJP(c) | |
| ACC NR: AP6029725 | JD/HM/HW | SOURCE CODE: UR/0130/66/000/005/0035/0037 |
| AUTHOR: <u>Popovskiy, Ye. I.; Magurin, A. S.</u> | | 47 33 B |
| ORG: Azerbaydzhane Pipe Rolling Mill (Azerbaydzhanskiy truboprobnyy zavod) | | |
| TITLE: Restoring and strengthening parts of metallurgical equipment by automatic surfacing | | |
| SOURCE: Metallurg, no. 5, 1966, 35-37 | | |
| TOPIC TAGS: metal surfacing, metallurgic machinery, wire, metal rolling | | |
| <p>ABSTRACT: At the Azerbaydzhane Pipe Rolling Mill imeni V. I. Lenin over 30,000 tons of equipment operating under severe conditions (heavy loads, high temperature, dust, etc.) have been installed and put into operation. The assembly sector of the mill, in its development, lags behind the increase in productive capacities which affects the provision of replaceable equipment and spare parts to the main mill shops. Under these conditions the restoration and strengthening of parts of equipment by surfacing with welding wire acquires special significance. On the type B installation for automatic submerged-arc surfacing, parts up to 4 meters long, from 200 to 2,000 mm in diameter and weighing up to 12 tons are restored and strengthened. Of much interest is the surfacing of the wornout part of straightening machine screws. During their operation a section 300 mm long, from a screw column 1000 mm long, is finished. It is turned on a lathe for half the length of the column, built up with</p> | | |
| Card 1/3 | UDC: 621.791.92 | 0918 0204 |

L 38904-66

ACC NR: AP6029725

SV-18KhGSA wire and then worked on a threader lathe for threading of the trapezoidal screw. Service life of the restored columns is not less than that of new ones. However, only parts whose smallest diameter is 250 mm can be built up qualitatively on this machine. The use of larger diameter welding wire (3-6 mm) and larger welding current (up to 1000 amp) resulted in metal runoff onto small-size parts due to the large curvature of the surface. (In connection with the fact that special welding wires (1Kh13, 1Kh18N9T, 10G2S and others) are initially used for surfacing, the list of restored and strengthened items has grown. Thus, rods of hydraulic manipulators and tilters which work in corrosive media frequently break down in the rolling workshop. Now they are surfaced with noncorrosive wires SV-1Kh13 and SV-1Kh18N9T. The service life of these items was increased 1.5-2-fold after strengthening. The use of powder surfacing wire offers great possibilities. The material for making the filler is a strip made of soft steel and powder consisting of a mixture of ferroalloys. By using different powder wires one can introduce alloying elements (chromium, manganese, tungsten, vanadium, nickel) contained in the wire into the surfaced layer. Powder wire PP-3Kh2V8, 3.6 mm in diameter, is used for strengthening. It is used in surfacing units in combination with welding flux AN-20. After build-up and mechanical treatment the hardness of the working surface amounts to 450-500 Brinell units, which is slightly more than the hardness of the metal from which the articles were made. In plant workshops there are a large number of polished rollers in roller conveyers used to transport heated tube blanks and the tubes themselves. These rollers are restored and strengthened with the powder wire

Card 2/3

L 38904-66

ACC NR: AP6029725

2

PP-3Kh2V8. The service life of these rollers is increased 2-3-fold. In 1963, the R-922 installation for surfacing internal cylindrical-conical surfaces in a carbon dioxide medium was put into operation. The sizes of the built-up articles: outside diameter -- 130-645 mm; internal diameter -- 90-420 mm; length -- up to 1100 mm. Restoration and strengthening of the articles on this unit are done with welding wires SV-08, SV-10G2, SV-1Kh13 and PP-3Kh2V8, 2-3 mm in diameter. Plant introduction of parts surfaced under a layer of flux and in a carbon dioxide medium permitted the saving of a large amount of wornout parts worth 400,000 rubles. At the present time efforts are continuing on expanding the base for the restoration and strengthening of parts of equipment by surfacing and introduction of new technology. In September, 1965, a type EVG-2 installation for the vibro-arc welding of parts 30-350 mm in diameter, which did not require machining after welding, was put into operation. Welding tool UMN-4, produced by the plant for submerged-arc welding permitted a sharp increase in the production of restored and strengthened parts measuring up to 1000 mm in diameter and up to 3000 mm in length, weighing up to 4 tons. In cooperation with the Azerbaydzhan Scientific Research Institute of Petroleum Machine Building, works are underway at the plant on the development of an installation for restoring wornout rollers of the 850 and 700 lathes weighing up to 16 tons. The installation will be built on the base of the roll lathe with the use of an A-384 weld head. The introduction of these measures will permit the restoration of parts amounting to 1,000-1,100 tons per year. Orig. art. has: 3 figures and 1 table. [JPRS: 36,728]

SUB CODE: 13 / SUBM DATE: none

Card 3/3 *ml*

POPOVSKIY, Yu.M.; DERYAGIN, B.V.

Heat capacity of a liquid in disperse systems. Dokl. AN SSSR
159 no.4:897-899 D '64 (MIRA 18:1)

1. Institut fizicheskoy khimii AN SSSR i Odesskoye vyssheye
morekhodnoye uchilishche. 2. Chlen-korrespondent AN SSSR (for
Deryagin).

54800

20442
S/061/61/009/006/002/015
B/C1/B201

AUTHOR: Perovskiy, Yu. M.

TITLE: Specific heat of nitrobenzene in the disperse nitrobenzene - glass system

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 6, 1961, 52 - 53.
abstract 6E182 (6B182). "Tr. Odesk. gidrometeorol. inst.",
1959, vyp. 20, 21 - 25

TEXT: The mean specific heat of nitrobenzene (I) has been measured for the temperature range 20 - 46°C in the disperse I - glass powder system. The product I has been purified by vacuum distillation performed three times. The glass powder surface has been treated in different ways: chromic acid mixture (1); hydrofluoric acid (2); electric current (3); flame (4). Depending on the treatment applied, the following values of C_p (cal/g.deg) have been obtained for I: 0.335±0.009 (1); 0.375±0.017 (2); 0.301±0.015 (3); 0.39±0.09 (4); 0.394±0.011 (without treatment). 0.369±0.002 cal/g.deg has been found for C_p of free I. The difference

Card 1/2

Specific heat of...

24442
S/081/61/000/006/002/015
B101/B201

between the \bar{C}_p of I in the disperse system and \bar{C}_p of free I is in general the larger, the higher the coefficient of friction of rest for glass on glass under the given surface treatment. Theoretical considerations regarding this problem are made. [Abstractor's note: Complete translation.]

Card 2/2

POPOVYAN, I. M., Prof.

Ulcers

Surgical treatment of gastric and duodenal ulcer. Sov. med. 16, no. 6, 1952.

Monthly List of Russian Accessions, Library of Congress, September 1952. UNCLASSIFIED.

POPOV'YAN, I.M.; GERASIMOV, N.V.

Surgical therapy of peptic ulcer of the colon. Khirurgiia, Moskva
no. 2:42-45 Feb 1953. (GLML 24:2)

1. Professor for Popov'yan; Docent for Gerasimov. 2. Of the Faculty
Surgical Clinic (Director -- Prof. I. M. Popov'yan), Saratov Medical
Institute.

POPOV'YAN, I.M., professor.

Transabdominal gastroectomy for perforation of gastric carcinoma.
Khirurgia no.7:82 J1 '55. (MLRA 8:12)

1. Zaveduyushchiy kafedroy fakul'tetskoy khirurgicheskoy kliniki
Saratovskogo meditsinskogo instituta.
(STOMACH--TUMORS) (STOMACH--RESECTION)

POPOVYAN, I.M., professor, (Saratov)

Resection of the stomach for hemorrhagic polyp in pernicious anemia.
Klin. med. 33 no.10:79-80 0 '55. (MIRA 9:2)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav.--prof. I.M. Popov'yan) imeni Mirotvortseva Saratovskogo meditsinskogo instituta.
(ANEMIA, PERNITIOUS, complications
stomach polyp with hemorrh., diag. & surg.)
(POLYPI,
stomach, with hemorrh., in pernicious anemia, diag. & surg.)
(STOMACH, neoplasms,
polyp with hemorrh., in pernicious anemia, diag. & surg.)
(HEMORRHAGE,
stomach polyp in pernicious anemia, diag. & surg.)

POPOV'YAN, I.M., professor; KUNIT'SINA, T.A., kandidat meditsinskikh nauk

Prevention of postoperative vomiting and regurgitation following
gastric resection. Sov.med. 20 no.5:61-66 My '56. (MIRA 9:9)

1. Iz fakul'tetskoy khirurgicheskoy kliniki imeni Mirotvortseva
Saratovskogo meditsinskogo instituta.

(STOMACH, surgery,
postop. vomiting & regurgitation, prev. (Rus))
(VOMITING,
postop., prev. (Rus))

5
POPOV'YAN, I.M., professor (Saratov, ul. 20 let VLKSM, d. 108, kv.16)

Postoperative results of gastric resection for ulcers, polyposis and gastric cancer. Nov.khir.arkh. no.2:28-32 Mr-Apr '57. (MLRA 10:8)

1. Kafedra fakul'tetskoy khirurgii Saratovskogo meditsinskogo instituta

(STOMACH--SURGERY) (PEPTIC ULCER) (STOMACH--CANCER)

POPOV'YAN, I.M., professor (Saratov)

Postoperative results of gastrectomy for peptic ulcer, polyposis
and stomach cancer. Klin. med. 35 no.2: 39-44 F '57 (MLRA 10:4)

1. Iz fakul'tetskoy khirurgicheskoy kliniki imeni S.R.
Mirotvortseva Saratovskogo meditsinskogo instituta.

(GASTRECTOMY, statist.

results in peptic ulcer, polyposis & stomach
cancer)

(STOMACH, NEOPLASMS, surg.

statist. of results)

(STOMACH NEOPLASMS, surg.

gastrectomy for cancer & polyposis, statist.
of results)

POPOV'YAN, I.M., prof. [deceased]; KOSHELEV, V.N., dotsent

Modern anesthesia in intrathoracic surgery. Sbor. nauch. rab.
Ser. gos. med. inst. 44:239-246 '64. (MIRA 18:7)

1. Iz kafedry fakul'tetskoy khirurgii imeni Mirotvortseva (zav. -
prof. I.M. Popov'yan [deceased]) Saratovskogo meditsinskogo insti-
tuta (rektor - dotsent N.R. Ivanov).

POPOV'YAN, I.M. [deceased]; KOSHELEV, V.N. (Saratov)

Gelomic cysts of the pericardium. Grud. khir. 6 no.4:112-119 JI-A;
'64. (MIRA 18/4)

POPCOV'YAN, M. D.

K Voprosu o prokhodimosti Likvornykh Putey pri sindrome men'yera p. 104
V sb Aktual'nyye Problemy Nevropatologii i Psikhiiatrii. Kuybyshev 1957

Iz kafedry nervnykh bolezney Saratovskogo gosudarstvennogo meditsinskogo in-ta.

POPOV'YAN, M.M.

Surgical treatment of gastric and duodenal ulcer. Sovet. med.
16 no. 6:20-21 June 1952. (GLML 22:4)

1. Professor. 2. Of the Faculty Surgical Clinic, Saratov Medical
Institute.

POPOV'YANTS R.S. (Ussuriysk); KLEYN, V.G., kand. med. nauk (Ussuriysk);
BORTNIKOV, O.G., kand. med. nauk (Ussuriysk)

Surgical treatment of cryptorchism. Urologia. 29 no.3:13-16
My-Je '64. (MIRA 18:10)

POPOVSKIY, M.M.

Increased technical and economic efficiency in manufacturing parts
for the cotton harvester. Sel'khoz mashina no.5:26-28 My '56.

(MLRA 9:8)

(Cotton-picking machinery)

PATON, B.Ye.; POPOVSKIY, O.V.

Ignitron circuit breaker with automatic device for the elimination
of direct component currents. Avtom. svar. 8 no.6:42-48 H-D '55.

(MIRA 9:2)

1.Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki imeni
Ye.O.Patona AN USSR.

(Electric welding) (Electric circuit breakers)

POPOVSKIY, O. V.

AID P - 5253

Subject : USSR/Engineering

Card 1/1 Pub. 11 - 4/15

Authors : Paton, B. Ye., O. V. Popovskiy and Yu. D. Gupalo
(Electrowelding Institute im. Ye. O. Paton)

Title : Automatic voltage regulator in resistance slag welding

Periodical : Avtom. svar., 4, 50-66, Ap 1956

Abstract : The authors present their research on the automatic regulation of voltage in resistance slag welding, and describe the design of an automatic regulator used in one, two and three-phase circuits. This regulator may be used at various voltages. It could be used also in resistance butt welding. Eight formulae, 8 oscillograms, 6 drawings, 1 graph and photo. Two Russian references (1955).

Institution : As above

Submitted : No date

PATON, B.Ye.; KUCHUK-YATSENKO, S.I.; POPOVSKIY, O.V.

Ignitron regulators of butt welding. Avtom. svar. 10 no.1:
55-62 Ja-F '57. (MLRA 10:4)

1. Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki im.
Ye.O. Patona AN USSR.
(Electric welding) (Voltage regulators)

POPOVSKIY, V.G.

Drying food products by the sublimation method. Kons. 1 ov. prom. 12
no. 4:5-10 Ap '57. (MIRA 10:6)

1. Kishinevskiy filial Vsesoyuznogo Nauchno-issledovatel'skego insti-
tuta konservnoy i oveshchesushil'noy promyshlennosti.
(Food--Drying)

POPOVSKIY, V.G.; GIDALEVICH, M.G.; DUL'NEVA, I.P.

Using new equipment for the manufacture of grape juice.
Kons.i ov.prom. 14 no.12:8-12 D '59. (MIRA 13:3)

1. Moldavskiy nauchno-issledovatel'skiy institut pishchevoy
promyshlennosti.
(Grape juice)

POPOVSKIY, V.V.; BORESKOV, G.K.

Kinetics of isotopic exchange between molecular oxygen and the surface oxygen of iron, cobalt, nickel, and copper oxides.
Kin. i kat. 1 no. 4:566-575 N-D '60. (MIRA 13:12)

1. Fiziko-khimicheskiy institut imeni L.Ya. Karpova.
(Oxygen--Isotopes) (Oxides)

S/076/61/035/001/013/022
B004/B060

AUTHORS: Popovskiy, V. V., Boreskov, G. K., and Muzykantov, V. S.
(Moscow)

TITLE: Study of the mechanism of hydrogen oxidation of cobaltous cobaltic oxide by the oxygen isotope O^{18}

PERIODICAL: Zhurnal fizicheskoy khimii, v. 35, no. 1, 1961, 192-197

TEXT: The authors studied the two possible oxidation processes on oxide catalysts: a) The oxidizing substances react with the oxygen of the catalyst; b) the oxygen of the catalyst does not participate in the reaction, but the oxidizing substances react with the oxygen of the gas phase, which is bound by chemisorption to the surface of the catalyst. This reaction mechanism has repeatedly been studied with the help of O^{18} . Isotopic exchange between molecular O_2 , oxidation product, and catalyst, however, may lead to errors. The purpose of the present work was to study the oxidation of H_2 on Co_3O_4 by means of O^{18} . The isotopes were analyzed with an MC-1 (MS-1) mass spectrometer. Co_3O_4 was obtained by heating

Card 1/7

Study of the mechanism of hydrogen ...

S/076/61/035/001/013/022
B004/B060

cobalt nitrate to 400°C. Three specimens were prepared. Their specific surface was determined by adsorption of N₂ at a low temperature, and their catalytic activity W_c with respect to H₂ was determined in the oxygen excess (p_{O2} ≈ 750 mm Hg, p_{H2} ≤ 20 mm Hg). Table 1 gives the following values: ✓

| values: | Catalyst | Specific surface, m ² /g | t, °C | W _{cH2} = 10 ⁻⁷ mole H ₂ /cm ² .h |
|---------|----------|-------------------------------------|-------|---|
| | A | 4.4 | 200 | 2.9·10 ⁻⁸ |
| | | | 150 | 6.2·10 ⁻⁸ |
| | | | 100 | 1.0·10 ⁻⁹ |
| | | | 75 | 5.0·10 ⁻¹⁰ |
| | B | 7.7 | 100 | 8.8·10 ⁻¹⁰ |
| | | | 50 | 1.6·10 ⁻¹⁰ |
| | C | 6.1 | - | - |

The authors studied a) the isotopic exchange between catalyst and atmospheric oxygen; b) the exchange between Co₃O₄ and water vapor in vacuo

Card 2/7

Study of the mechanism of hydrogen ...

S/076/61/035/001/013/022
B004/B060

at 400°C for 4 hr; c) the exchange between water vapor and atmospheric oxygen; d) the participation of the catalyst oxygen. a) These experiments were made in a continuous-flow device at $p_{O_2} \sim 10$ mm Hg. A figure shows the fraction of exchanged oxygen ions of the catalyst surface at different temperatures. No exchange was observed at 75°C. The decreasing exchange rate indicates that the oxygen ions are heterogeneous. b) The water vapor was enriched in O^{18} . The isotope analysis of the water was carried out according to A. V. Trofimov (Ref. 9) by exchange with CO_2 and by a mass-spectrometric analysis of CO_2 . Exchange of 7, 30, and 20% was observed at 400, 75, and 50°C, respectively. Therefore, the oxygen exchange between water vapor and catalyst surface is to be taken into account. c) No exchange was observed at 75°C. d) This experiment was made at 75°C. In the experiments of the first series, the catalyst was enriched with O^{18} by isotopic exchange with water vapor at 400°C. The oxygen of H_2O contained approximately 16 at% O^{18} . Three experiments were made with the catalyst containing O^{18} , which was evacuated at 400°C for 4 hr: 1) oxidation of H_2 in O_2 excess at 75°C; 2) exchange reaction with the oxygen of H_2O ; ✓

Card 3/7

Study of the mechanism of hydrogen ...

S/076/61/035/001/013/022
B004/B060

3) reduction with H_2 at 200-250°C. Results are collected in Table 2. In the second series, the catalyst contained natural oxygen, was evacuated at 400°C, treated with normal O_2 , which was then sucked off at 75°C. Subsequently, the device was filled with oxygen containing 4 at% O^{18} . In addition, the exchange between Co_3O_4 and water vapor was studied as in the first series. Results are presented in Table 3. The following conclusions were drawn from the results obtained: 1) At a temperature of 75°C, the major part of oxygen ions of the catalyst surface do not participate in the reaction. 2) After the catalyst has been heated to 400°C, only 2-20% of the oxygen ions of the catalyst surface participate in the reaction, while a treatment of the catalyst at 75°C increases this percentage to 13-39%. There are 1 figure, 3 tables, and 9 references: 8 Soviet-bloc and 1 non-Soviet-bloc.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physico-chemical Institute imeni L. Ya. Karpov)

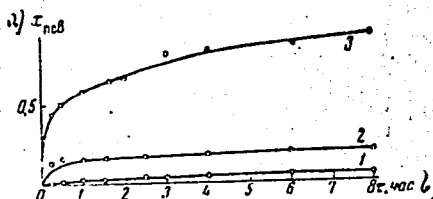
SUBMITTED: May 13, 1959

Card 4/7

Study of the mechanism of hydrogen ...

S/076/61/035/001/013/022
B004/B060

Legend to the figure:
a) concentration of oxygen ions
of the catalyst surface;
b) time, hr;



Card 5/7

Study of the mechanism of hydrogen ...

S/076/61/035/001/013/022
B004/B060

Legend to Table 2: 1) number of experiment; 2) process; 3) weighed-in quantity of Co_3O_4 ; 4) specific surface, m^2/g ; 5) oxygen (in g) in the monomolecular layer of the catalyst surface; 6) quantity of forming (introduced) water, g; 7) quantity of O_2 in water, g; 8) M - ratio of O_2 in the forming H_2O to O_2 in the monomolecular layer; 9) O^{18} concentration in H_2O (at%); 10) fraction of oxygen ions of the catalyst surface converted into H_2O ; 11) oxidation; 12) exchange; 13) reduction

| 1/ | 2/ | 3/ | 4/ | 5/ | 6/ | 7/ | 8/ | 9/ | 10/ |
|---------|----------------|---------------------|--|---|---|--------------------------------|------|-------------------------------------|---|
| № опыта | Процесс | Пявесо-на окисла, г | Уд. поверхность, $\text{м}^2/\text{г}$ | Количество кислорода в монослое окисла, г | Количество образовавшейся (взвешен) воды, г | Количество кислорода в воде, г | M | Конц. O^{18} в воде, ат. % | Доля поверхностных ионов кислорода, прешедших в воду, % |
| 14 | Окисление | 46,53 | | 0,121 | 0,4 | 0,35 | 2,05 | 0,02 | 18,2 |
| 14 I | Обмен | 44,75 | 7,7 | 0,116 | 0,3 | 0,27 | — | 0,07 | 16,9 |
| 14 II | Восстановление | 43,71 | | 0,114 | 0,4 | 0,35 | 3,12 | 7,00 | — |
| 14 III | Окисление | 42,52 | | 0,110 | 0,4 | 0,35 | 3,22 | 0,67 | 19,1 |
| 14 IV | Обмен | 40,39 | 7,7 | 0,105 | 0,4 | 0,35 | — | 0,56 | 16,1 |
| 14 V | Восстановление | 45,18 | | 0,118 | 0,4 | 0,35 | 3,01 | 8,12 | — |

Table 2

Card 6/7

Study of the mechanism of hydrogen ...

S/076/61/035/001/013/022

B004/B060

Legend to Table 3: (1-12 as in Table 2). 14) before and 15) after the experiment; 16) $c_{18}^{18}O$ in the oxygen of the reaction products..

Table 3

| 1) Эксп. опыт | 2) Процесс | 3) Навеска на окис- ле, г | 4) Уд. поверх- ность, м ² /г | 5) Кол-во нис- лорода в мо- лекулах окис- ла, г | 6) Кол-во обра- зующейся (взлетной) во- ды, г | 7) Кол-во нис- лорода в во- де, г | 8) М | 9) с ¹⁸ в воде | | 10) с ¹⁸ нислоро- да резинной смеси | 11) Доли поверх- ностных ионов нислорода, не решивших в воду, % |
|---------------------|----------------|------------------------------------|---|---|---|--|---------|------------------------------|----------------------|---|--|
| | | | | | | | | началь- ная А) | после опыта Б) | | |
| I 1) | Окис- ление | 100 | 6,1 | 0,207 | 0,34 | 0,30 | 1,44 | — | 3,10 | 4,29 | 41,6 |
| | 12) | Обмен | | 100 | 0,207 | 0,35 | 0,31 | — | 2,90 | 2,49 | 4,29 |
| II 3) | Окис- ление | 75 | 6,1 | 0,155 | 0,34 | 0,30 | 1,93 | — | 3,44 | 4,19 | 36,1 |
| | 12) | Обмен | | 75 | 0,155 | 0,33 | 0,29 | — | 4,45 | 3,95 | 4,19 |

Card 7/7

5.4300

88361
S/195/60/001/004/009/015
B017/B055

AUTHORS: Popovskiy, V. V., Boreskov, G. K.

TITLE: Kinetics of the Isotopic Exchange Between Molecular Oxygen and Oxygen at the Surfaces of Iron, Cobalt, Nickel, and Copper Oxides

PERIODICAL: Kinetika i kataliz, 1960, Vol. 1, No. 4, pp. 566-575

TEXT: The kinetics of the isotopic exchange between molecular oxygen and oxygen at the surfaces of iron, cobalt, nickel, and copper oxides were investigated. The measurements were made statically by using the continuous-flow apparatus shown schematically in Fig. 1. Oxygen containing an excess of O^{18} was prepared by electrolysis of water containing 4 at% O^{18} . The specific surfaces of the oxide catalysts were determined by the BET method.

The following values were found: Co_3O_4 : $7.7 \text{ m}^2/\text{g}$; Fe_2O_3 : $27.2 \text{ m}^2/\text{g}$; NiO : $7.8 \text{ m}^2/\text{g}$; CuO : $17.6 \text{ m}^2/\text{g}$. The exchange of oxygen between molecular oxygen and solid oxides at 10 - 30 mm Hg and 100 - 400°C is a complex

Card 1/3

88361

Kinetics of the Isotopic Exchange Between
Molecular Oxygen and Oxygen at the Surfaces of
Iron, Cobalt, Nickel, and Copper Oxides

S/195/60/001/004/009/015
B017/B055

process. The Fe_2O_3 surface is homogeneous with respect to the exchange reaction, while the surfaces of Co_3O_4 , NiO and CuO are inhomogeneous in this respect. The isotopic exchange of oxygen with Fe_2O_3 , NiO , and CuO is illustrated in Table 1. A graphic representation of isotopic exchange as a function of time is given in Figs. 2-5. The kinetics of the exchange between gaseous oxygen and oxygen at the surface of Co_3O_4 , NiO , and CuO cannot be described by an equation of first order. Herefrom, the authors conclude that the surfaces of these catalysts are inhomogeneous. The isotopic exchange with Fe_2O_3 , however, fits an equation of first order. Fig. 6 shows $\log(1 - F)$ as a function of the time of exchange in the case of Fe_2O_3 . $F = (C_0 - C)/(C - C_\infty)$, where C_0 = concentration of O^{18} on the surface of the lattice, C = concentration of O^{18} in the gas, C_∞ = concentration of O^{18} on the surface of the lattice at equilibrium. Fig. 7 shows the changes in the activation energy of isotopic exchange along the

Card 2/3

Kinetics of the Isotopic Exchange Between
Molecular Oxygen and Oxygen at the Surfaces of
Iron, Cobalt, Nickel, and Copper Oxides

88361
S/195/60/001/004/009/015
2017/B055

surface. The reactivity of the oxides with respect to isotopic exchange changes in the same degree as their catalytic activity in hydrogen oxidation, i.e. $R_{Co_3O_4} > R_{NiO} > R_{CuO} > R_{Fe_2O_3} > R_{V_2O_5}$. The rates of

isotopic exchange and hydrogen oxidation are functions of the concentration of the oxygen adsorbed at the catalyst surfaces. S. M. Karpachev, A. M. Rozen and S. Z. Roginskiy are mentioned. There are 7 figures, 2 tables, and 14 references: 10 Soviet, 4 British, and 1 Japanese. X

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova
(Physicochemical Institute imeni L. Ya. Karpov)

SUBMITTED: September 26, 1960

Card 3/3

BORESKOV, G.K.; KASATKINA, L.A.; POPOVSKIY, V.V.; BALOVNEV, Yu.A.

Oxygen mobility and the catalytic activity of vanadium pentoxide
promoted with potassium sulfate. *Kin.i kat.* 1 no.2:229-236
Jl-Ag '60. (MIRA 13:8)

1. Fiziko-khimicheskiy institut im. L.Ya.Karpova.
(Vanadium oxide)
(Potassium sulfate)
(Oxygen--Isotopes)

AUTHORS: Kasatkina, L. A., Boreskov, G. K., Krylova, Z. L.,
153-58-1-3/29
Popovskiy, V. V.

TITLE: Investigation on the Mobility of Oxygen in Vanadium-Pentoxide
by Means of the Isotope-Exchange Method (Issledovaniye
podvizhnosti kisloroda pyatiokisi vanadiya metodom izotopnogo
obmena)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimiches-
kaya tekhnologiya, 1958, Nr 1, pp. 12 - 19 (USSR)

ABSTRACT: Vanadium pentoxide forms the active component of many oxi-
dizing catalysts (vanadium contact-masses with the production
of H_2SO_4 , catalysts of the naphthalene-, anthracene-oxidation
and of other production). It was interesting to compare the
catalytical activity of V_2O_5 and the readiness of the ex-
change of its oxygen against the molecular-oxygen and the
steam. A survey of the publications (References 1 to 4)
dealing with this problem is given. It is followed by an ex-
perimental part with the description of the methods. The
following conclusions were drawn from the results obtained:

Card 1/3

Investigation on the Mobility of Oxygen in Vanadium-Pentoxide by Means
of the Isotope-Exchange Method 153.58.1-3/29

- 1) After an investigation of the isotopic exchange of the vanadium pentoxide with oxygen (at 450, 500, 530 and 550°C) and with steam (at 200, 385 and 450°C), it was found that the exchange with oxygen at all above-mentioned temperatures is accelerated very rapidly. At 200°C an exchange against steam does not take place.
- 2) It was proved that the exchange with steam (figures 7 to 9) takes place at lower temperatures and at greater velocities than with molecular oxygen (figures 1 to 6).
- 3) An addition of potassium-sulfate increases the exchangeability of pentoxide both with oxygen and with steam.
- 4) The exchange between the vanadium-preparations and the molecular oxygen is determined by the exchange on the surface and takes place according to the first order. In the case of steam the velocity of surface-exchange is considerably higher; the oxygen diffusion does not follow the equalization of the isotopic composition in the interior of the crystal, so that the velocity of exchange decreases more rapidly with increasing degree of exchange, than this would

Card 2/3

Investigation on the Mobility of Oxygen in Vanadium-Pentoxide by Means
of the Isotope-Exchange Method 153-58-1-3/29

correspond to the equation of first order. There are 9
figures and 7 references, 6 of which are Soviet.

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskii institut imeni D. I.
Mendeleyeva, Kafedra tekhnologii razdeleniya i primeneniya
izotopov (Moscow Chemical Technological Institute imeni
D. I. Mendeleyev, Professorial Chair for the Technology
of the Separation and Use of Isotopes)

SUBMITTED: October 22, 1957

Card 3/3

SOV/124-57-8-9819

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 8, p 168 (USSR)

AUTHORS: Ovchinnikova, Ye. N., Popovskiy, Yu. M., Soldatov, B. I.

TITLE: An Instrument for the Determination of the Elastic-plastic Properties of Disperse Systems (Pribor dlya opredeleniya uprugoplasticheskikh svoystv dispersnykh sistem)

PERIODICAL: Tr. Odessk. un-ta, 1956, Vol 146, ser. khim. n., Nr 5, pp 121-123

ABSTRACT: Bibliographic entry

Card 1/1

USCOM-DC-60,657

POPOVSKI Y. Yu. M.

✓ Strengthening of dispersed systems after repeated deformation. B. M. Orshanskaya, Yu. M. Popovskii, and N. I. Potanina. *Sovetsk. Khim. Tekh. i Nauka. Tekhn. Inform. Fiz. Otdel. Ucheb. 1954, No. 5, 129-34; English transl. in Zh. Khim. 1956, Abstr. No. 4029. The app. was constructed for determination of the strength of dispersed systems. The strengthening of the dispersed systems after repeated deformation reaches a large amount of deformation ex-*

POPOVSKIY, Yu.M.

Absorption spectra of thin nitrobenzene layers wetting glass.
Trudy OGMI no.20:27-39 '59. (MIRA 14:10)
(Benzene—Spectra)
(Wetting)
(Glass)

POPOVSKIY, Yu.M.

Heat capacity of nitrobenzene in the disperse system nitrobenzene -
glass. Trudy OGMI no.20:21-25 '59. (MIRA 14:10)
(Benzene--Thermal properties)
(Wetting)
(Glass)

POPOVTSEV, S. N., Cand Tech Sci -- (diss) ^{Methods} "Technique of
determination^{ing} of the true length of longitudinal lines in the
scale layout of ^a ~~the~~ ship hull." [Len], 1957. 20 pp with
drawings (Len Shipbuilding Inst), 135 copies (KL, 52-57,
108)

- 57 -

LUSHNIKOV, F.N.; YASNOV, A.A.; POPOVTSEV, V.A.

Wheeled industrial tractors at the International Exhibition of
Road Construction Machinery in Moscow. Trakt. i sel'khoz mash.
no.2:43-46 F '65. (MIRA 18:4)

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy traktorny
institut.

POPOVICSNE GUBOLA, Maria

Linke's temperature sensation by hours in Budapest. Idojaras 65 no.5:
294-297 S-0 '61.

(Hungary—Atmospheric temperature)
(Temperature sense) (Linke, F.)

POPGV-VVEDENSKIY, A.

Transformation of the Northern Dvina delta. Rech. transp. 21
no.5:50 My '62. (MIRA 15:5)
(Northern Dvina River--Delta)

POPOVYAN, D.E., kand.tekhn.nauk

Blocking devices with ultrasonic transducers. Mekh. i avtom.proizv. 17
no.10:31-34 0 '63. (MIRA 17:1)

POPOV'YAN, I.M., prof.

Our experience in reducing complications and mortality in lobectomy. Khirurgiia 40 no.4:145-150 Ap '64 (MIRA 18:1)

1. Fakul'tetskaya khirurgicheskaya klinika imeni S.R. Mirotvortseva (zav. - prof. I.M. Popov'yan) Saratovskogo meditsinskogo instituta.

POPOV'YAN, I.M., prof. (Saratov, ul.20-letiya VLKSM, d.108, kv.16)

Simultaneously performed subtotal resection of the esophagus in cancer and retrosternal esophagoplasty with the left half of the large intestine. Vest. khir. 91 no.11:111-112 N '63. (MIRA 17:12)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. I.M.Popov'yan) Saratovskogo meditsinskogo instituta.

POPOV'YAN, I.M., prof., otv. red. (Saratov); NAPALKOV, P.N., zasl. deyatel' nauki prof., red.; ZAKHAROV, N.V., prof., red. [deceased]; BEL'SKIY, A.V., dots., red.; KOSHELEV, V.N., dots., red.; GORCHAKOV, L.G., red.; CHERNYSHEV, N.V., red.; BLINER, M.S., red.; ANDREYEV, P.P., red.

[Transactions of the Second Congress of Surgeons of the R.S.F.S.R.] Trudy vtorogo s"ezda khirurgov RSFSR. Saratov, Vser. nauchn. med. ob-vo khirurgov, 1963. 583 p.

(MIRA 17:8)

1. S"yezd khirurgov RSFSR. 2d, Saratov, 1962.

POPOV'YAN, I. M., prof.

Ways for lowering postoperative lethality in transabdominal
gastrectomy for gastric cancer. Khirurgia 38 no.7:124-130
Jl '62. (MIRA 15:7)

1. Iz fakul'tetskoy khirurgicheskoy kliniki imeni S. R.
Mirotvortseva (zav. - prof. I. M. Popov'yan) Saratovskogo
meditsinskogo instituta.

(STOMACH--CANCER) (STOMACH--SURGERY)

POPOV'YAN, I. M., prof.; SEREBRYAKOVA, N. I.

Influence of liver function on postoperative outcome following
echinococcotomy of the liver. Khirurgiia 37 no.7:67-70 J1 '61.
(MIRA 15:4)

1. Iz fakul'tetskoy khirurgicheskoy kliniki imeni S. R. Mirot-
vortseva (zav. - prof. I. M. Popov'yan) Saratovskogo meditsinskogo
instituta.

(LIVER---HYDATIDS)

POPOV'YAN, I.M., professor; FRANKFURT, L.A.

Gastrectomy in cancer of the stomach. Vest.khir. no.7:54-60
'61. (MIRA 15:1)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (dir. - prof. I.M.
Popov'yan) Saratovskogo meditsinskogo instituta. Adres I.M.
Popov'yana: Saratov, ul. 20 let, Vsesoyuznyy Leninskiy kommuni-
sticheskiy soyuz molodezhi.
(STOMACH---SURGERY) (STOMACH---CANCER)

BYREYEV, P.A., prof.; VARSHAMOV, L.A., prof.; VOLYNSKIY, B.G., dotsent;
 GERASIMOV, N.V., dotsent; GUREVICH, L.I., dotsent; ZHELYABOVSKIY,
 G.M., prof.; KARTASHOV, P.P., prof.; KOCHETOV, K.P., dotsent;
 KRUGLOV, A.N., prof.; KUTANIN, M.P., prof.; LARINA, V.S., dotsent;
 LOBKO, I.S., doktor [deceased]; LUKOVA, A.I., prof.; MAKHLIN,
 Ye.Yu., prof.; NAUMOV, A.I., kand.med.nauk; POPOV'YAN, I.M., prof.;
 SOLUN, N.S., kand.med.nauk; TARABUKHIN, M.M., dotsent; TRET'YAKOV,
 K.N., prof.; TRISHINA, A.A., kand.med.nauk; UL'YANOVA, A.V., dotsent;
 PAYN, A.E., kand.med.nauk; FAKTOROVICH, A.M., dotsent; FRANKFURT,
 A.I., prof.; FISHER, L.I., dotsent; CHASOVNIKOVA, Ye.P., kand.med.
 nauk; SHAMARIN, P.I., prof.; SHAPIRO, M.Ya., dotsent; SHVARTS, I.S.,
 prof.; SHUSTERMAN, I.B., dotsent; FOY, A.M., prof.; FREYDMAN, S.L.,
 kand.med.nauk; NIKITIN, B.A., dotsent, red.; AFANAS'YEV, I.A.,
 red.; LUKASHEVICH, V., tekhn.red.

[Concise medical reference book] Kratkii terapevticheskii spra-
 vochnik. Izd.3., ispr. i dop. Saratov, Saratovskoe knizhnoe
 izd-vo, 1959. 919 p. (MIRA 13:7)

1. Chlen-korrespondent AMN SSSR (for Tret'yakov).
 (MEDICINE--HANDBOOKS, MANUALS, ETC.)

POPOV'YAN, I.M., prof.; KOSHELEV, V.N. (Saratov)

Diagnosis and surgical treatment of chondroma (hamartoma) of the
lung. Klin.med. 37 no.11:68-71 N '59. (MIRA 13:3)

1. Iz fakul'tetskoy khirurgicheskoy kliniki imeni S.R. Mirotvortseva
(zaveduyushchiy - prof. I.M. Popov'yan) Saratovskogo meditsinskogo
instituta.

(LUNG neoplasms)
(HAMARTOMA)

POPOV'YAN, I.M., prof. (Saratov, ul. 20 let NKSU, 108, kv.16);
CHERNYSHEV, N.V.

Surgical treatment in pulmonary echinococcosis. Vest. khir.
92 no.2:41-46 F '64. (MIRA 17:9)

1. Iz fakul'tetskoy khirurgicheskoy kliniki imeni S.H.
Mirotvortseva (dir.- prof. I.M. Popov'yan) Saratovskogo
meditsinskogo instituta (rektor - dotsent N.R. Ivanov).

POPOV'YAN, Mariya Dmitriyevna

Disturbance of the Permeability of the Routes of Cerebro-Spinal
Fluids Concerning Some Diseases of the Nervous System.

Dissertation for Candidate of Medical Science degree. Chair of Nerve
Diseases (head, Asst. Prof. A.V. Ul'yanova) Saratov Medical Institute,
1958

POPOV'YAN, M. D., kand. med. nauk

Dynamics of the cerebrospinal fluid in tuberculous meningitis.
Probl. tub. no.3:44-48 '62. (MIRA 15:4)

1. Iz kliniki nervnykh bolezney (zav. - dotsent A. V. Ul'yanova)
Saratovskogo meditsinskogo instituta (dir. - dotsent N. R. Ivanov)

(MENINGES--TUBERCULOSIS)